testing and examination shall include the following:

- (1) Testing the voltage of each battery while under actual load to assure the battery is fully charged. The voltage for nickel cadmium cell batteries shall not be lower than the product of the number of cells in the battery pack multiplied by 1.25. The voltage for other than nickel cadmium cell batteries shall not be lower than the product of the number of cells in the battery pack multiplied by the manufacturer's nominal voltage per cell value;
- (2) Examination of all components of the cyclone to assure that they are clean and free of dust and dirt;
- (3) Examination of the inner surface of the cyclone on the approved sampling device to assure that it is free of scoring:
- (4) Examination of the external tubing on the approved sampling device to assure that it is clean and free of leaks; and
- (5) Examination of the clamping and positioning of the cyclone body, vortex finder and cassette to assure that they are rigid, in alignment, and firmly in contact.
- (e) MSHA Informational Report IR 1240 (1996)referenced in paragraph (a) of this section is incorporated-by-reference. This incorporation-by-reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected or obtained at MSHA, Coal Mine Safety and Health, 1100 Wilson Blvd., Room 2424, Arlington, Virginia 22209–3939 and at each MSHA Coal Mine Safety and Health district office. Copies may be inspected at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http:// $www.archives.gov/federal_register/$ code of federal regulations/ $ibr \ \overline{locations.html}$.

[45 FR 80769, Dec. 5, 1980, as amended at 64 FR 43286, Aug. 10, 1999; 67 FR 38386, June 4, 2002; 71 FR 16669, Apr. 3, 2006]

§ 90.205 Approved sampling devices; operation; air flowrate.

(a) Sampling devices approved in accordance with part 74 (Coal Mine Dust Personal Sampler Units) of this title

shall be operated at the flowrate of 2.0 liters of air per minute, or at a different flowrate as prescribed by the Secretary and the Secretary of Health and Human Services for the particular device.

(b) Except as provided in paragraph (d) of this section, each approved sampling device shall be examined each shift by a person certified in accordance with §90.202 (Certified person; sampling) during the second hour after being put into operation to assure that the sampling device is operating properly and at the proper flowrate. If the proper flowrate is not maintained, necessary adjustments shall be made by the certified person.

(c) Each sampling device shall be examined each shift by a person certified in accordance with §90.202 (Certified person; sampling) during the last hour of operation to assure that the sampling device is operating properly and at the proper flowrate. If the proper flowrate is not maintained, the respirable dust sample shall be transpirable dust sample shall be transpirable to MSHA with a notation by the certified person on the dust data card stating that the proper flowrate was not maintained.

(d) Paragraph (b) of this section shall not apply if the approved sampling device is being operated in a breast or chamber of an anthracite coal mine where the full box mining method is used.

§ 90.206 Approved sampling devices; equivalent concentrations.

The concentration of respirable dust shall be determined by dividing the weight of dust in milligrams collected on the filter of an approved sampling device by the volume of air in cubic meters passing through the filter and then converting that concentration to an equivalent concentration as measured with an MRE instrument. To convert a concentration of respirable dust as measured with an approved sampling device to an equivalent concentration of respirable dust as measured with an MRE instrument, the concentration of respirable dust measured with the approved sampling device shall be multiplied by a constant factor prescribed by the Secretary for the approved sampling device used, and the

§ 90.207

product shall be the equivalent concentration as measured with an MRE instrument.

§ 90.207 Compliance sampling.

- (a) The operator shall take five valid respirable dust samples for each part 90 miner within 15 calendar days after:
- (1) The 20-day period specified for each part 90 miner in §90.100 (Respirable dust standard);
- (2) Receipt of notification from MSHA that any respirable dust sample taken in accordance with §90.208 (Bimonthly sampling) exceeds 1.0 milligram per cubic meter of air or the respirable dust standard established by §90.101 (Respirable dust standard when quartz is present); and
- (3) Implementing any transfer after the twentieth calendar day following receipt of notification from MSHA that a part 90 miner is employed at the

§ 90.208 Bimonthly sampling.

(a) Each operator shall take one valid respirable dust sample for each part 90 miner during each bimonthly period beginning with the bimonthly period of February 1, 1981. The bimonthly periods are:

February 1-March 31 April 1-May 31 June 1-July 31 August 1-September 30 October 1-November 30 December 1-January 31.

- (b) When the respirable dust standard is changed in accordance with §90.101 (Respirable dust standard when quartz is present), respirable dust sampling of part 90 miners shall begin on the first shift on which the miner is performing normal work duties during the next bimonthly period following notification of such change from MSHA.
- (c) Upon issuance of a citation for a violation of §90.100 (Respirable dust standard) or §90.101 (Respirable dust standard when quartz is present), paragraphs (a) and (b) of this section shall not apply to that part 90 miner until the violation is abated in accordance with §90.201(d) (Sampling; general requirements).

§ 90.209 Respirable dust samples; transmission by operator.

- (a) The operator shall transmit within 24 hours after the end of the sampling shift all samples collected to fulfill the requirements of this part in containers provided by the manufacturer of the filter cassette to: Respirable Dust Processing Laboratory, Pittsburgh Safety and Health Technology Center, Cochran Mill Road, Building 38, P.O. Box 18179, Pittsburgh, Pennsylvania 15236–0179, or to any other address designated by the District Manager.
- (b) The operator shall not open or tamper with the seal of any filter cassette or alter the weight of any filter cassette before or after it is used to fulfill the requirements of this part.
- (c) A person certified in accordance with §90.202 (Certified person; sampling) shall properly complete the dust data card that is provided by the manufacturer for each filter cassette. The card shall have an identification number identical to that on the cassette used to take the sample and be submitted to MSHA with the sample. Each card shall be signed by the certified person and shall include that person's certification number. Respirable dust samples with data cards not properly completed will be voided by MSHA.
- (d) All respirable dust samples collected by the operator shall be considered taken to fulfill the sampling requirements of part 70, 71 or 90 of this title, unless the sample has been identified in writing by the operator to the District Manager, prior to the intended sampling shift, as a sample to be used for purposes other than required by part 70, 71 or 90 of this title.
- (e) Respirable dust samples received by MSHA in excess of those required by this part shall be considered invalid samples.

(Pub. L. No. 96-511, 94 Stat. 2812 (44 U.S.C. 3501 *et seq.*))

[45 FR 80769, Dec. 5, 1980, as amended at 58 FR 63529, Dec. 2, 1993; 60 FR 33723, June 29, 1995; 60 FR 35696, July 11, 1995]

§ 90.210 Respirable dust samples; report to operator.

(a) The Secretary shall provide the operator with a report of the following